

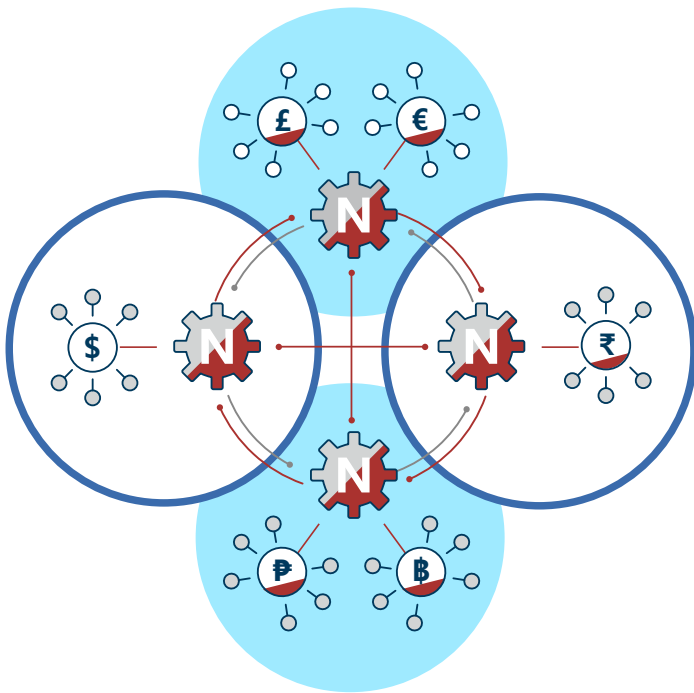


► **Project Nexus Overview**

**Enabling instant cross-border
payments at scale**

July 2024

Revolutionising Global Payments



What is Nexus? – A multilateral payment scheme that aims to achieve the G20 targets of enabling cheaper, faster, more transparent and accessible cross-border payments.

How Nexus works – Nexus provides a comprehensive blueprint to standardize the way domestic instant payment systems (IPS) communicate with each other. Its multilateral nature allows each IPS to make a single connection to the Nexus platform to reach all other IPS in the network.

Who is involved? – This has been a collaborative effort between the BISIH and interested central banks and IPS that has been developed and refined over three phases of work. In the next and final phase of Nexus, the BISIH will support a coalition of countries interested to implement Nexus in the real world and to use it to connect to their domestic IPS.

Bridging market gaps

Existing cross-border payment rails present major challenges today

- Correspondent banking rails are often expensive, slow, and offer limited transparency for both end-users and smaller banks, especially in developing economies.
- Closed-loop solutions, while cheaper, often face accessibility, inclusion, and interoperability issues, resulting in market fragmentation and economic inefficiencies at the global scale.

Nexus addresses market gaps through innovation

- By leveraging existing IPS, Nexus offers a complementary low-cost and scalable rail for all Payment Service Providers (PSP).
- The multilateral nature of Nexus allows it to bridge gaps in interoperability by fostering standardisation and harmonisation across diverse systems, enabling seamless communication and scalability across different regions and platforms.

Design principles



Public Policy Goals
enabling safe, efficient, accessible and transparent cross-border payments



Financial Sustainability
facilitating a financially sustainable commercial model



Inclusivity
representing both public and private stakeholders in the ecosystem



Agility
responding promptly to changes and keeping pace for innovation



Neutrality
representing fairness and impartiality



Scalability
ambitions to become a global solution

Designing a next-gen FMI

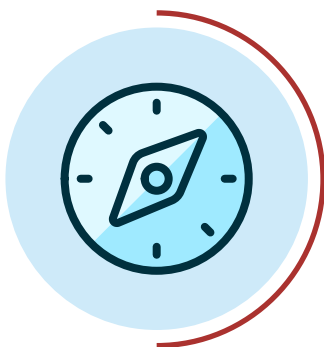


Nexus Scheme Organisation

- The Nexus Scheme would be owned and governed by the Nexus Scheme Organisation (NSO), which would be incorporated as a not-for-profit company limited by guarantee.
- The NSO may choose to outsource its technical and operational roles to a competent firm, termed as the Nexus Technical Operator (NTO).

Governance Framework

- The NSO would be a member-owned organisation with owners comprising central banks or IPS operators nominated by participating jurisdictions.
- To ensure parity, the NSO adopts a one-member-one vote model, and each member may appoint a representative to sit in the NSO Board¹.



Nexus Scheme Rulebook

- The Rulebook defines the eligibility requirements, rights & obligations of participants and describes rules and technical standards for Nexus payments.
- Nexus is designed to be compliant with the regulatory requirements and policies of the participating countries.

(Possible) Oversight Arrangements

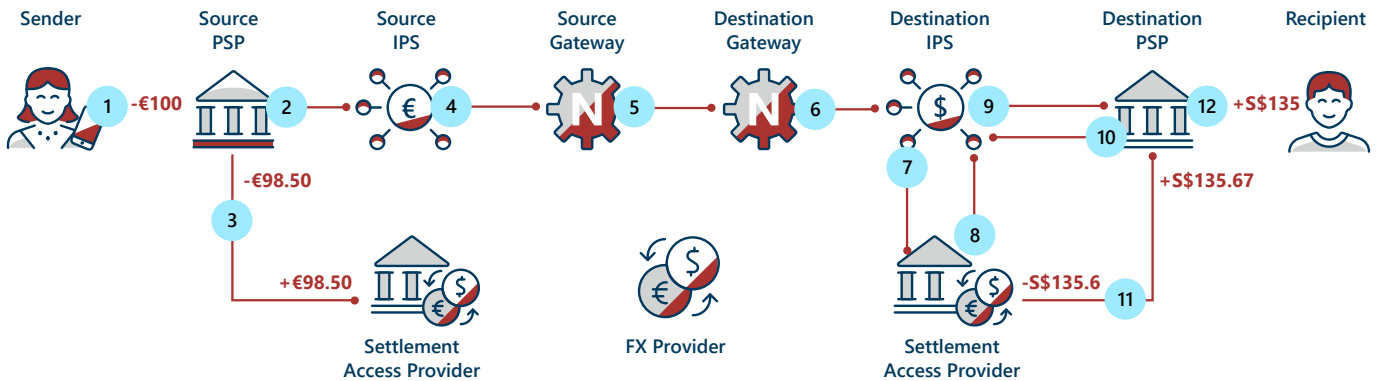
- The NSO could be jointly overseen by a Joint Oversight Forum (JOF), comprising central banks/regulators of participating jurisdictions.
- The JOF would be led by the Lead Overseer, which would be the central bank/regulator of the Nexus home jurisdiction.



¹ As the number of participating countries grow, appropriate mechanism may be introduced to select Board members based on relevant considerations (e.g. profile, geographical representation, transaction volume).

Creating an ecosystem for all

Actors in Nexus



Multiple actors in Nexus transaction

- **FX Provider (FXP):**
quotes FX rates for cross-border payments
- **Source & Destination IPS (S-IPS, D-IPS):**
operate IPS in sender and receiver jurisdictions
- **Source & Destination Payment Service Provider (S-PSP, D-PSP):**
provide payment services to the Sender and Recipient
- **Source & Destination Settlement Access Provider (S-SAP, D-SAP):** provides accounts to FXPs, who is not a participant in a domestic IPS

Breakdown of Nexus fee model

- **S-PSP fee** – set by the **S-PSP**
- **S-SAP fee** – negotiated between **S-SAP & FXP**
- **S-IPS fee** – set by the **S-IPS**
- **Nexus Scheme fee** – set by **NSO**
- **FXP fee** – set by the **FXP**
- **D-IPS fee** – set by the **D-IPS**
- **D-SAP fee** – negotiated between **D-SAP & FXP**
- **D-PSP fee** – set by **NSO**, common to all **D-PSPs**

Nexus does not prescribe all per-transaction fee components, allowing Nexus actors to ensure price competitiveness and to drive market competition

Financial institutions may play roles that make commercial sense to them

- Depending on their preference, financial institutions (FIs) may play a single or multiple roles in Nexus and would receive the relevant per-transaction fees. E.g. a small bank may only participate as PSP, while a specialized FX entity may participate as FXP. Meanwhile, larger banks may participate as a PSP, SAP, and FXP.
- The Nexus fee model allows all parties to recover cost, with a healthy room for some margin.
- The Nexus model brings about efficiency through reusability, standardisation, and scalability thus driving its overall cost competitiveness.

A cloud-based design

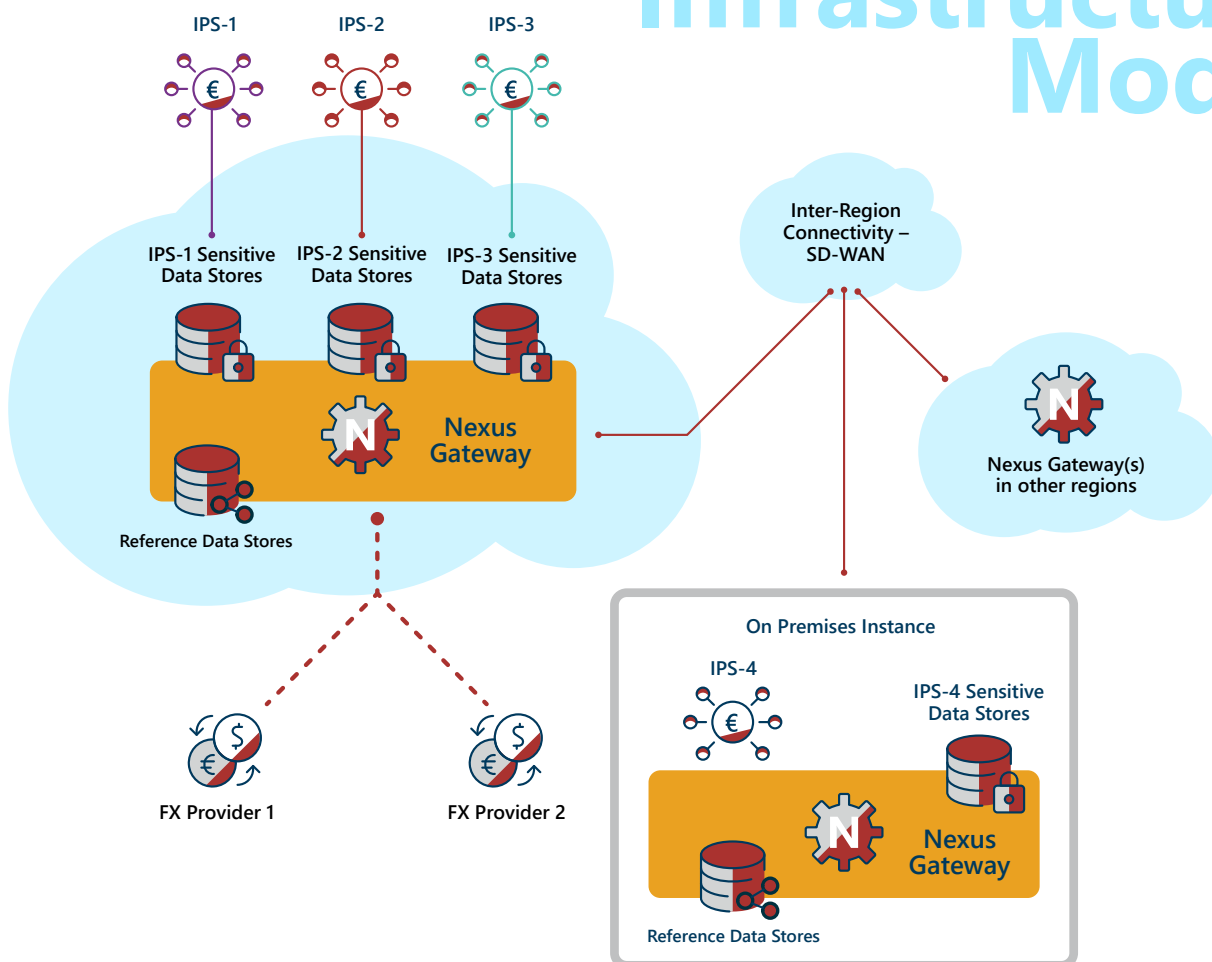
Gateways are platform agnostic

As a default approach, each Gateway would be cloud hosted and could manage payments for multiple IPS. This design ensures that IPS have minimal infrastructure to maintain beyond a secure connection to a Nexus Gateway. Alternatively, a Gateway for a specific IPS can also be hosted on its own dedicated cloud or on-premises, depending on the IPS preference.

A flexible and scalable global solution

The Nexus model is flexible enough to support scaling to multiple regions. This allows for additional regions and participants to be added to the Nexus network in a way that is compliant with domestic data residency rules.

Nexus Infrastructure Model



Segregation of transaction data

Data in Gateways would be segregated by IPS, so that each IPS operator will only be able to see data that is related to transactions to and from that IPS.

Each Gateway contains all required functionalities

Each Gateway will have a common set of reference data across all IPSOs. This helps to facilitate efficient data flows and ensures minimal latency.

What you can expect



For industry participants

Efficient cross-border transactions

- Nexus reduces the complexity of cross-border payments by shortening the transaction chain, reducing overall cost and time for cross-border transactions.

Cost-effective global solution

- Participants would only incur a one-time integration cost to connect to Nexus, to access all participating countries. This minimises the time, effort and cost required for integration while maximising scalability as a global solution.

A standardised and resilient ecosystem

- All Nexus participants would adhere to a common Nexus Scheme Rulebook, ensuring consistency and harmonization. Minimum standards are enforced, promoting proper risk management practices and ecosystem safety.

For individuals

Seamless integration with existing apps

- Users can utilise existing apps of any participating PSP in order to make a Nexus transaction.

Greater convenience via the use of proxies

- Proxies, such as mobile phone numbers, can be used for Nexus transactions, eliminating the need for lengthy international bank account numbers.

Transparent fee disclosure

- Users will receive upfront details on all fees, FX rate and amount to be credited into the recipient's account.



For the future

Geographical Expansion

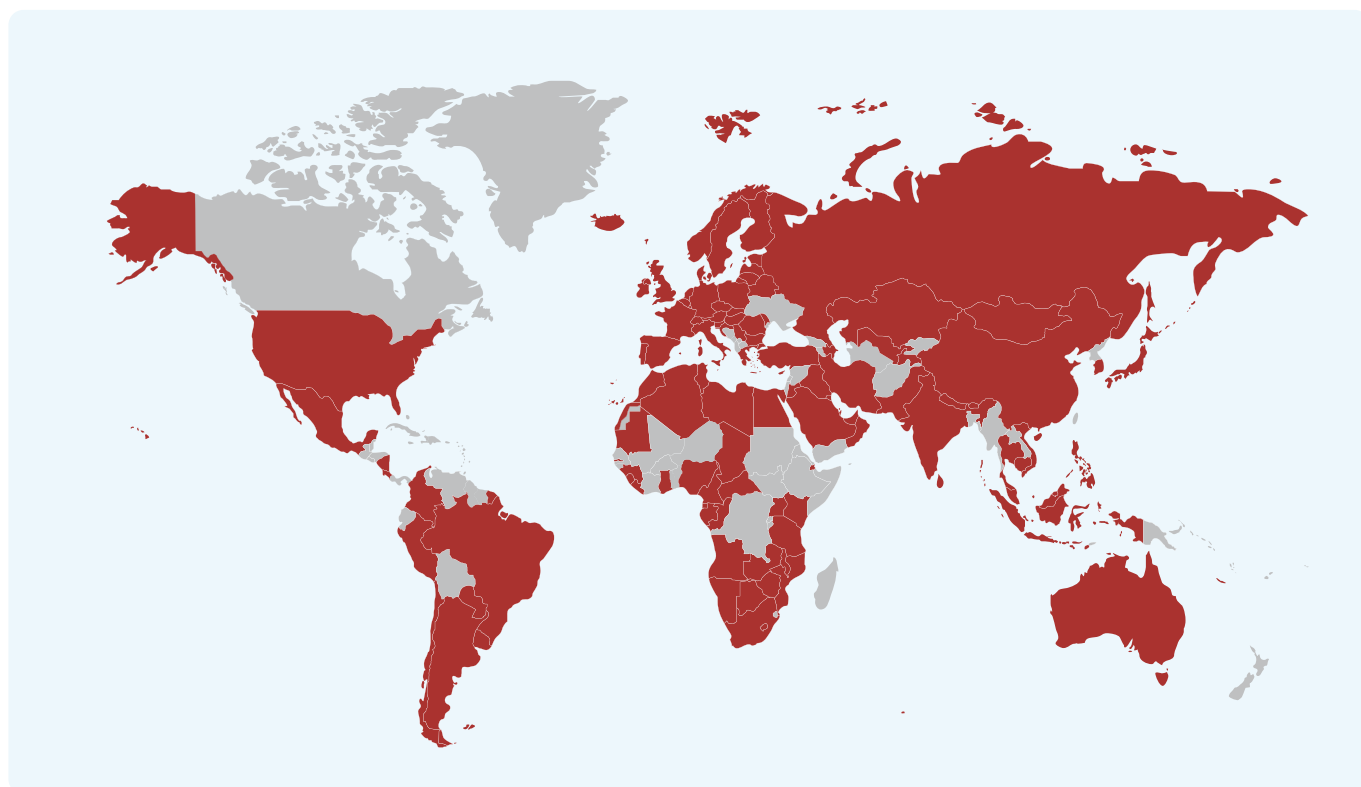
- Nexus has plans to extend the network to new countries and regions, ensuring global accessibility and impact.

Use Case Diversification

- Nexus use cases will evolve to expand beyond A2A payments to include QR merchant payments and other functionalities.

A global solution

There are **over 70 countries** today with IPS that enable domestic payments to reach their destination in seconds at near-zero cost to the sender or recipient. Connecting these IPS to each other has the potential to enable cross-border payments from Sender to Recipient within 60 seconds.



Forging ahead with a coalition of first movers

Project Nexus Phase 3 is a collaborative effort of the BIS Innovation Hub and the central banks of Indonesia, Malaysia, the Philippines, Singapore and Thailand. With input drawn from central banks, global institutions, IPS operators and private sector players from over 20 countries, Nexus aims to be a global solution rather than a regional one.

In the next phase of Nexus, the BISIH Singapore Centre will support a coalition of countries who are interested to implement Nexus in the real world and use it to connect their domestic IPS. The project partners will continue its engagements with interested parties to solicit views and feedback to ensure that Nexus becomes an effective global solution.

Operationalising the Nexus Scheme Organisation

To facilitate live implementation in Phase 4, the coalition of countries have agreed to work towards establishing a new entity, the Nexus Scheme Organisation (NSO), which will be responsible for managing the Nexus scheme and its rulebook.

While the BIS will not own or operate the NSO, it will continue its support by playing an advisory role as participating countries work towards taking Nexus live.



BIS Innovation Hub

For any queries, please contact:
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Report and technical docs available online:
<https://docs.bis.org/nexus>